AMENDMENTS IN THE SPECIFICATION:

Please replace paragraph [0008] with the following amended paragraph:

[0008] A fluorescence measuring apparatus according to the present invention is a fluorescence measuring apparatus for measuring fluorescent components emitted from a specimen corresponding to respective excitation pulse components projected toward the specimen, which comprises a photoelectric converter, a charge storage element, and a controller. The photoelectric converter implements photoelectric conversion of the fluorescent components emitted from the specimen corresponding to the respective excitation pulse components. The charge storage element stores a charge resulting from the photoelectric conversion by the photoelectric converter and transfers the stored charge. The controller outputs an electronic shutter signal for sweeping away the charge resulting from the photoelectric conversion by the photoelectric converter, a readout signal for reading the charge resulting from the photoelectric conversion, into the charge storage element, and a transfer signal for sequentially transferring the read charge. Particularly, the controller outputs an electronic shutter signal corresponding to generation of [[a]] each excitation pulse component ~~included in excitation light~~, outputs a readout signal corresponding to output of the electronic shutter signal, and outputs a transfer signal per at least two readout signals outputted.

Please replace paragraph [0033] with the following amended paragraph:

[0033] A stored charge Δq resulting from photoelectric conversion in each photodiode 101a during an output delay time W is transferred to the associated vertical transfer element 101b with

output of a readout signal (see Fig. [[4C]] 4D). In this embodiment, the generation of excitation pulse component 50 is carried out t times, and the charge Δq resulting from photoelectric conversion in each photodiode 101a is transferred t times to the vertical transfer element 101b. After the t operations, a transfer signal is fed to the vertical transfer elements 101b, and each vertical transfer element 101b successively transfers the stored charge (Δq x t) to an adjacent vertical transfer element 101b (see Fig. 4F). The charge thus transferred is then transferred to a horizontal transfer element 101c and is further transferred to an adjacent horizontal transfer element 101c to be read out. The charge thus read out is the charge Δq stored t times, and, by dividing it by the number of operations t, it is feasible to obtain the charge Δq corresponding to a fluorescent component 60 corresponding to one excitation pulse component 50.